The Zoological Society of Japan

ANNOTATIONES ZOOLOGICAE JAPONENSES
Volume 53, No. 1—March 1980

Published by the Zoological Society of Japan

A New Species of *Paralomis* (Crustacea, Anomura) from the East China Sea

With 4 Text-figures

Masatsune TAKEDA

Department of Zoology, National Science Museum (Nat. Hist.), Tokyo 160, Japan

and

Sadayoshi MIYAKE

Department of Technology, Kyushu Sangyo University, Fukuoka 813, Japan

ABSTRACT A new stone crab of the family Lithodidae, *Paralomis truncatispinosa*, is described from the continental slope of the East China Sea. It is quite distinctive in the armature of the carapace and thus readily distinguished from the twenty-five known species.

In 1977 an experimental trawling operation was carried out at the continental slope of the East China Sea to exploit the further fish resources by the Seikai Regional Fisheries Research Laboratory under the sponsorship of the Fisheries Agency. The decapod crustaceans then collected were at the authors' disposal for systematic studies by the courtesy of Drs. Tadahiro Kitajima and Shuzo Kishida, to whom the authors' cordial thanks are tendered.

The records of the specimens obtained will be published elsewhere in due time, but a new species of the Lithodidae is provisionally described in this paper. Of the four specimens dealt with at present, three (holotype, allotype and a paratype) are deposited in the National Science Museum, Tokyo (NSMT) and the other paratype in the Kitakyushu Museum of Natural History (KMNH).

Paralomis truncatispinosa sp. nov.

[New Japanese name: Ibo-ezoibaragani]

(Figs. 1–4)

Material examined. Net 18 (29°38.92′N, 127°55.95′E—29°39.67′N, 127°57.75′E) 750 m deep, stone; Feb. 4, 1978; 1 ♀ infested by a sacculinid parasite, NSMT–Cr 6186 (allotype). Net 19 (29°38.81′N, 127°58.35′E—29°39.31′N, 128°00.08′E), 830–

NII-Electronic Library Service

The Zoological Society of Japan

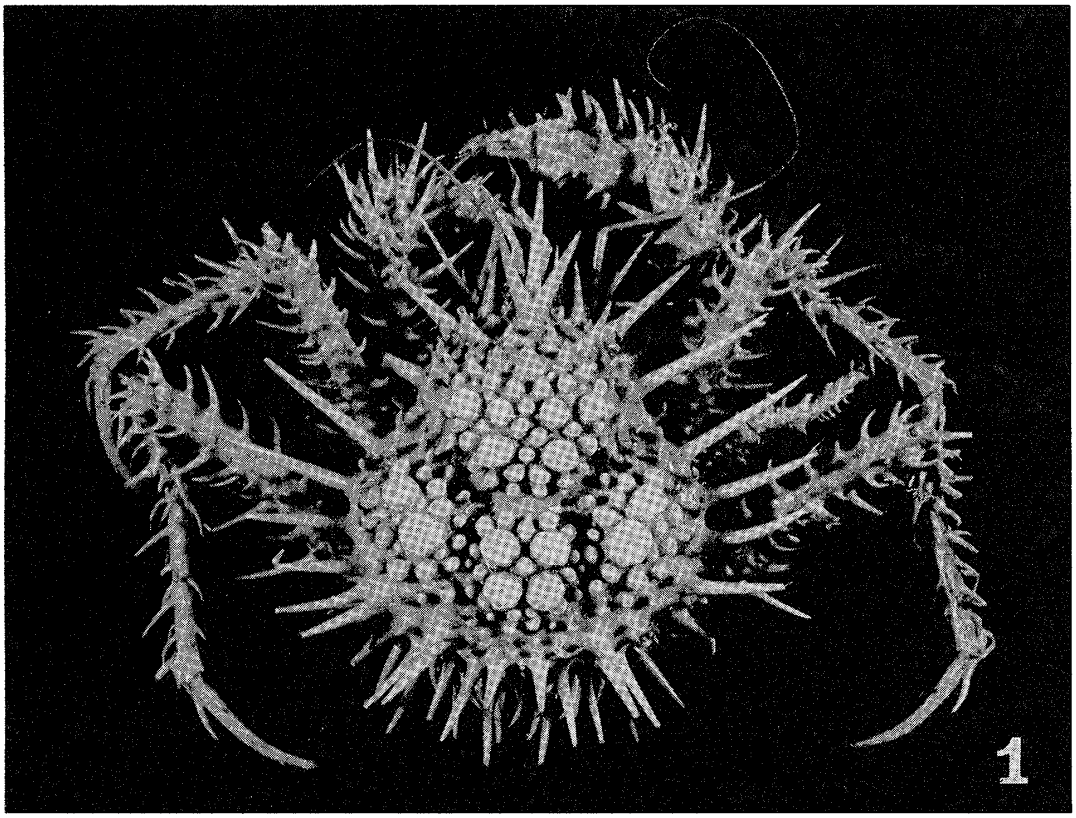


Fig. 1. *Paralomis truncatispinosa* sp. nov., holotype ♂.

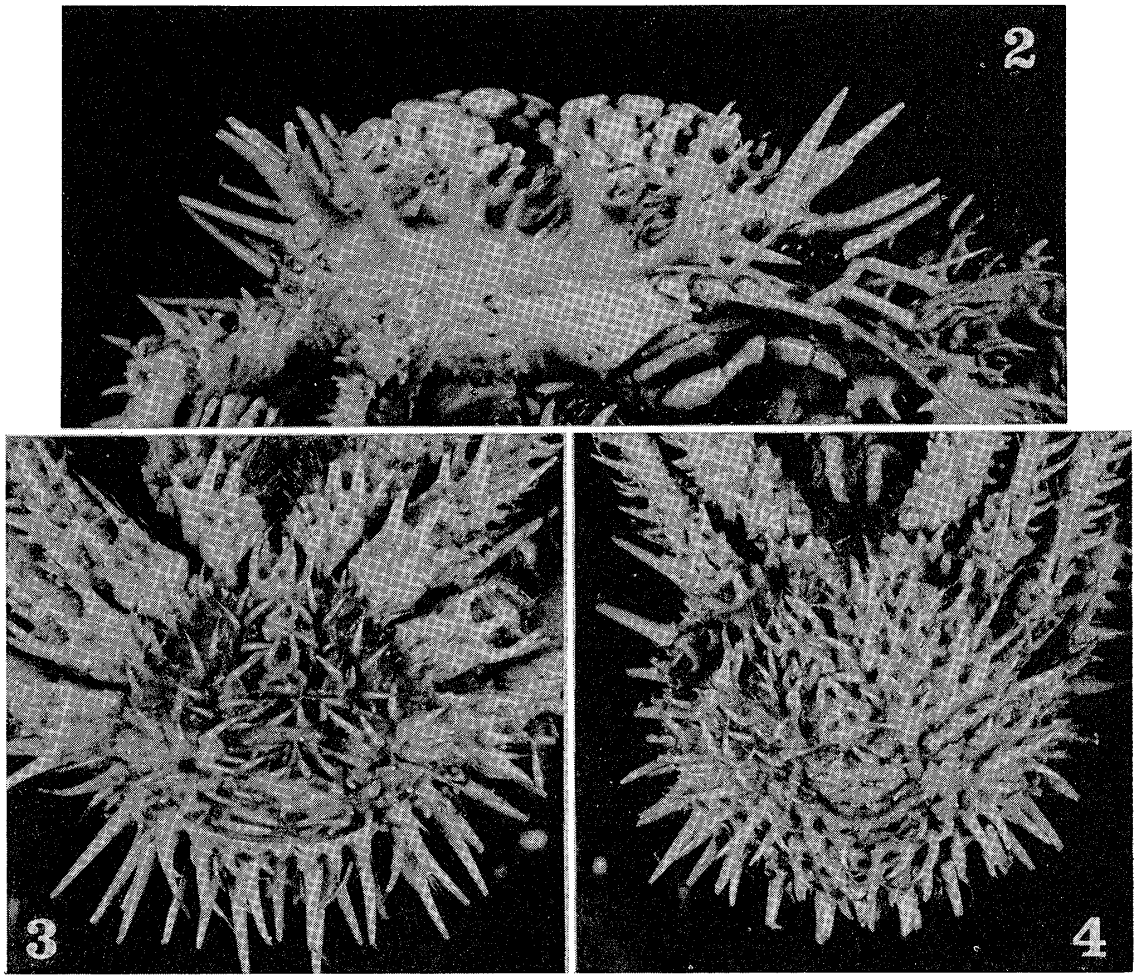
840 m deep, stone; Feb. 4, 1978; 1 ♀ infested by a sacculinid parasite, NSMT–Cr 6187 (paratype). Net 21 (29°23.01′N, 127°30.92′E—29°24.47′N, 127°31.99′E), 650–642 m deep, sandy mud; Feb. 5, 1978; 1 ♂, NSMT–Cr 6185 (holotype), 1 ♂, KMNHIvR 100001 (paratype).

Measurements in mm. Length of carapace in median line without rostral spine (cl) and breadth of carapace without lateral spines (cb) are as follows. Holotype—cl 43 and cb 40; allotype—cl 45 and cb 39; paratypes—cl 45 and cb 40, cl 30 and cb 26.

Description of holotype. Carapace, chelipeds and ambulatory legs prominently spiny, but most of the spines on the dorsal surface of carapace are truncated. Carapace pyriform and slightly longer than broad; cervical groove very deep, and thus gastric region distinctly separated from cardiac and branchial regions which are also separated from each other by a much shallower groove at each side; all of gastric, cardiac and branchial regions convex and thickly covered with wart-like truncated tubercles of various size which are symmetrically disposed in basic pattern; some larger tubercles among them, viz., four on gastric region, two on each branchial region and four on cardiac region; a conical tubercle at anterior median part and a longish spine at antero-external part of gastric region; several spines on marginal parts of gastric and branchial regions curved forward, being tipped each with a tuft

NII-Electronic Library Service

The Zoological Society of Japan



Figs. 2–4. *Paralomis truncatispinosa* sp. nov. —— 2. Carapace of holotype ♂ in lateral view; 3 and 4. Abdomen of holotype ♂(3) and allotype ♀(4).

of longish hairs. Marginal spines of carapace extremely long and directed obliquely forward and upward; hepatic margin armed with two, the first of which is shorter and placed at outside of external orbital spine; branchial margin armed with seven; first spine nearly as long as true hepatic one, and others gradually diminish their size posteriorly; altogether ten longish spines on and near posterior border of carapace.

Rostral median spine slender and weakly curved upward, being provided at its proximal dorsal part with a pair of similar, but straight spines, each of which is directed obliquely upward, forward and outward. External orbital spine about two-thirds as long as rostral spines, and extended horizontally forward. Eyestalk short and not reaching tip of external orbital spine, being armed with three spinules on upper surface and a slender, weakly curved spine directed forward at its anterior end just above cornea. Antero-external angle of antennal basal segment armed with a spine which is directed forward and followed by two spinules at its base;

NII-Electronic Library Service

The Zoological Society of Japan

second segment armed with three long spines at its antero-external angle; the first as long as external orbital spine and directed obliquely forward, the second directed laterally and only slightly shorter than the first, and the third about two-thirds as long as the second and directed obliquely backward.

Chelipeds unequal and not heavy; in right cheliped spines various in length and usually tipped each with a small tuft of hairs; both fingers provided with many tufts of setae; left cheliped similar to right one in shape, but palm about half in height and slightly shorter than fingers.

Ambulatory legs slender and extremely spiny, with spines of various lengths similar to those of chelipeds.

All segments of abdomen also covered with spines; most of spines on second segment longer than those on other segments; second segment dimpled on either side of median line; all spines on distal five segments rather short, thick and nearly equal in length, being curved in various directions and tipped each with a tuft of hairs; thus, segmentation of these segments nearly disguised.

Notes on allotype and paratypes. In the allotype the tips of carapacial marginal spines are broken off, but the contour of the carapace, the sculpture by the deep cervical groove, and the armature with the wart-like tubercles are quite identical with those of the holotype. The chelipeds are only slightly different in size as usual. The abdomen is also thickly and rather uniformly covered with curved spines like in the holotype male.

One of the paratypes, the smaller male (NSMT 6187), has most of the marginal spines broken off, but in spite of its small size the disposition of the strong spines on the hepatic and branchial margins, and of the truncated wart-like tubercles on the gastric, cardiac and branchial regions is quite identical with those of the holotype and allotype. In the larger male (KMNHIvR 100001) the spines including rostral ones are somewhat damaged, but it agrees well with the holotype.

Remarks. In life the carapace, chelipeds and ambulatory legs were uniformly brick red.

As listed by Takeda (1974) and supplemented by Takeda and Ohta (1979), the genus *Paralomis* is represented by twenty-five species. The new species is quite distinctive in the armature of the carapace and readily distinguished from the known species. In some species the developmental changes in the armature of the carapace are usual, but the wart-like tubercles on the gastric, cardiac and branchial regions and the strong spines on the hepatic and branchial margins seem to be the fundamental features for the new species.

Literature

Takeda, M., 1974. On three species of the Lithodidae (Crustacea, Anomura) from the Central Pacific. *Bull. Natn. Sci. Mus., Tokyo*, **17**: 205–212, pls. 1–3.

——— and S. Ohta, 1979. A new species of the Lithodidae (Crustacea, Anomura) from Suruga Bay, Central Japan. *Ibid.*, (A), **5**: 195–200, pls. 1–3.

NII-Electronic Library Service